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United States Patent [19]

Sheppard

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[11] Patent Number:

6,153,420

[45] Date of Patent:

Nov. 28, 2000

[54] SERINE PROTEASE POLYPEPTIDES AND MATERIALS AND METHODS FOR MAKING THEM

[75] Inventor: Paul O. Sheppard, Redmond, Wash.

[73] Assignee: ZymoGenetIcs, Inc., Seattle, Wash.

[21] Appl. No.: 09/072,384

[22] Filed: May 4, 1998

Related U.S. Application Data

| [63] | Continuation-in-part of a | pplication No. 09/062,142, Apr. 17, |
|------|---------------------------|-------------------------------------|
| | 1998, abandoned. | - |

[60] Provisional application No. 60/044,185, Apr. 24, 1997.

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57] ABSTRACT

A novel serine protease is disclosed. The protease comprises a sequence of amino acid residues that is at least 95% identical to SEQ ID NO:2 from Ile, residue 111, through Asn, residue 373. Also disclosed are polynucleotide molecules encoding the protease, expression vectors containg the polynucleotides, cultured cells containing the expression vectors, and methods of making the protease. The protease can be used, inter alia, within industrial processes to degrade unwanted proteins or alter the characteristics of protein-containing compositions.

24 Claims, No Drawings